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AF/3721  
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANT: Ferdinand Kristen et al.

SERIAL NO. 09/846,931

FILED: May 1, 2001

FOR: Percussion Electrical Hand-Held Tool

EXAMINER: Gloria R. Weeks

Group: 3721

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**Mail Stop Appeal Brief - Patents**

Commissioner for Patents

P.O. Box 1450

Alexandra, VA 22313-1450

**BRIEF ON APPEAL**

Sir:

This is a brief in support of an appeal from the Final rejection of claims  
1-4 and 6-10 by the Examiner.

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The Commissioner is hereby authorized to charge the fee required under 37 C.F.R. § 1.17(c) in the amount of \$320.00 and any additional fee which may be required or credit an overpayment to our Deposit Account No. 50-0955. A duplicate of this sheet is enclosed.

I. **REAL PARTY IN INTEREST**

The real party in interest is the assignee HILTI Aktiengesellschaft.

II. **RELATED APPEALS AND INTERFERENCES**

None.

III. **STATUS OF CLAIMS**

The present application was filed with ten (10) claims, namely, claims 1-10. During the prosecution, claim 5 was canceled, and claim 1 was amended to incorporate the features of claim 5 therein. Claims 1-4 and 6-10 now present in the application for appeal purposes.

IV. **STATUS OF AMENDMENTS**

The Final Office Action was issued on March 26, 2003. The Examiner rejected claims 1-3 and 6-7 under 35 U.S.C. § 102(b) as being anticipated by

and claims 4 and 5 under 35 U.S.C. § 103 (a) as being unpatentable over Schmid, et al., U.S. Patent No. 4,456,076 (Schmid). Claims 8-10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schmid in view of Eisenhardt, U.S. Patent No. 5,706,902 (Eisenhardt).

In response to the Final Office Action, a Rule 116 amendment has been filed, which canceled claim 5, incorporating the subject matter of claim 5 into claim 1. Upon filing the Notice of Appeal, the Rule 116 amendment has been entered.

## V. SUMMARY OF THE INVENTION

The present invention relates to an electrical hand-held tool for producing at least a percussion movement of the working tool and including a first subassembly that includes a percussion mechanism (2) axially displaceable, within predetermined limits, along the tool axis A ((paragraph bridging pages 8-9, lines 3-4), Fig. 1) in a direction (I). The first subassembly also includes a brushless rotor (5) of an electrical drive for driving the power tool and axially displaceable, together with the percussion mechanism (2) in the same direction (I). The brushless rotor (5) rotates about its rotational axis (B) extending parallel to the displacement path (I) of the percussion mechanism (2) ((the paragraph bridging pages 8-9, lines 8-13), Fig. 1). The power tool further includes a second subassembly that includes the tool housing (6) in which the

first subassembly is supported for a limited movement along the tool axis (A). The first subassembly also includes transformation gear (4) that transforms the rotational movement of the rotor (5) into the translational movement of the percussion mechanism (2) ((the paragraph bridging pages 8-9, lines 5-6), Fig. 1). The second subassembly also includes the stator (7) of the electrical drive and the associated control electronics (8) ((the paragraph bridging pages 8-9, lines 13-17), Fig. 1). The second subassembly is protected from vibration by a helical compression spring (9) and by a damping element (10) (Fig. 1). Generally, the two subassemblies have substantially the same mass (page 7, lines 1-3). The damping element is formed of a viscous elastic material which dissipates a large amount of energy at the oscillation frequency in the range of the operational temperatures of a percussion hand-held tool (page 7, lines 6-8).

## VI. ISSUES

As noted above, claims 1-3 and 6-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by, and claims 4-5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schmid. Claims 1-3 and 6-10 were also rejected under 35 U.S.C. § 102(b) as being anticipated by Eisenhardt. With the subject matter of claim 5 being incorporated into claim 1, the issue under consideration is whether claim 1, as amended, and claims 4, 6, 7 are indeed unpatentable over Schmid, and whether claims 8-10 are also unpatentable over Schmid in view of Eisenhardt.

## VII. GROUPING OF CLAIMS

The subject application contains a single independent claim, claim 1, and it is respectfully submitted that claim 1 is patentable over the prior art, including all of the prior art of record in this application, because of specific novel features recited therein and which are not disclosed or suggested in the prior art.

Claims 6 and 9 do not stand or fall together with claim 1 and are allowable because of the specific features recited therein which, whether taken alone and/or in combination with features of claim 1, are not disclosed or suggested in the prior art.

Claims 2-4 and 7-8 stand or fall together with claim 1. Claim 10 stands or falls together with claim 9.

## VIII. ARGUMENTS

As noted above, the Examiner rejected claim 5, the features of which are now incorporated in claim 1, under 35 U.S.C. § 103(a) as being unpatentable over Schmid, asserting that Schmid discloses all of the elements of claim 1, except a “brushless” rotor the use of which would have been obvious in view of the fact that the use of such rotors in electric tool assemblies are generally known, and that the use of such a rotor would be a matter of design choice.

Appellant respectfully disagrees with this assertion. Specifically, claim 1 recites that the first, oscillating subassembly which includes the percussion

mechanism, also includes a rotor of the electrical drive. This is not disclosed in the prior art. In Schmid, the rotor (9) does not form part of the first oscillating subassembly (23, 24). The rotor (9), together with the stator and the transmission gear (12, 13), form part of the second, subassembly that also includes the housing (please see Fig. 2). In Schmid, the rotor (9), being a rotor of a universal-type motor (2), cannot be displaced relative to the stator and, thus, relative to the housing.

Further, applicant respectfully disagrees with the assertion that the use of the brushless rotor is a matter of design choice. In the present invention, the use of brushless rotor is necessary to be able to decouple the rotor from the stator and, thereby, to provide for a free movement of the rotor, which forms part of the first subassembly, relative to the stator which forms part of the second subassembly. Schmid does not contemplate displacing the rotor relative to the stator. Thus, there is no need in a brushless rotor in Schmid.

The Court of Appeals for Federal Circuit clearly stated that a modification of a prior art reference would not be obvious unless the prior art suggested the desirability of the modification. In *re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

This decision of the Court of Appeals for Federal Circuit is consistent with the decision in National Tractor Pullers Assoc., Inc. v. Watkins, 205 U.S.P.Q. 892 (D.C. NJ 1980) in which the Court held that the

test of obviousness under 35 U.S.C. 103 is not whether prior art device could be modified into something resembling applicant's structure, but whether, at time invention was made, it would have been obvious to person of ordinary skill in art, given teachings of prior art, to make the invention; in considering prior art, prior patents are references only for what they clearly disclose or suggest, and it is not proper to modify their structures in manner that is not suggested by prior art.

The Board of Patent Appeals and Interferences likewise stated that prior art must provide motivation or reason for worker in said art to make necessary changes in reference device, without benefit of appellant's specification, in order to be obvious. Ex parte Chicago Rawhide Manufacturing Co. (PO Bd. App. 1984) 223 U.S.P.Q. 351.

The prior art does not suggest the desirability of the modification and/or motivation or reason for the modification set forth in claim 1.

Moreover, Schmid teaches away from using a brushless rotor (motor) in a power-driven hand tool. Specifically, Schmid states that it is advantageous to use a universal-type motor (column 4, lines 27-28). The case law holds that it's erroneous to disregard teachings of a prior art reference that teach away from the invention at hand, and that a prior art reference must be considered in its entirety, including portions that would lead away from the claimed invention. W.L. Gore & Associates v. Garlock, Inc., 220 U.S.P.Q. 303 (Fed. Cir. 1983).

In view of the above, it is respectfully submitted that the present invention, as defined by claim 1, would not be obvious over Schmid, and claim 1 is, therefore, patentable over Schmid.

Claim 6 depends on claim 1 and is allowable for the same reasons claim 1 is allowable and further because of specific features recited therein which are not disclosed or suggested in the prior art. Specifically, claim 6 recites that the first and second subassemblies have a substantially same mass. This is not disclosed in the prior art.

In the office action of October 23, 2002, the Examiner lists elements of a power hand tool and states that two subassemblies have the same mass. From this statement, it is unclear which elements constitute the first subassembly and which elements constitute the second subassembly. Anyway, the drive motor (the stator and the rotor) forms part of the subassembly including the housing, and this subassembly would be noticeably heavier than the subassembly including the percussion mechanism. It is noted that in Schmid, the transformation gear (12, 13) forms part of the subassembly including the housing and the drive motor.

Claim 9 recites that the damping element is formed of a viscous elastic material. No such damping element is disclosed in Eisenhardt. Eisenhardt discloses a spring-elastic or rubber-elastic body (Column 4, lines 23). Rubber is not a viscous material. According to a dictionary definition, Merriam Webster's Collegiate Dictionary, Tenth Edition, 1998, "viscous" means "characterized by viscosity" (page 1320, right column), and "viscosity" means "the property of resistance to flow in a fluid or semifluid." Rubber, at least in its final stage, is not a semifluid material.



In view of the above, it is respectfully submitted that claim 9 is patentable over the combination of Schmid and Eisenhardt.

### CONCLUSION

In view of the foregoing, it is respectfully submitted that the rejection of claims 1-4, 6, and 7 under 35 U.S.C. § 103(a) as being unpatentable over Schmid and the rejection of claims 8-10 under 35 U.S.C. § 103(a) as being unpatentable over Schmid in view of Eisenhardt, is improper, and it is respectfully requested that this rejection be reversed.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 27, 2004.

Alexander Zinchuck

**APPENDIX "A"**

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**Claims On Appeal**

1. An electrical hand held tool for producing at least a percussion movement of a working tool, comprising an electric drive; a first, oscillating subassembly including a percussion mechanism (2) for transmitting the percussion movement to the working tool, and a brushless rotor (5) of the electrical drive and rotatable about a rotor axis (B) extending parallel to an oscillation path (I) of the first subassembly; and a second subassembly including a housing (6) in which the first subassembly is supported for a limited movement along a tool axis (A).
2. An electrical hand-held tool according to claim 1, wherein the first subassembly includes a transformation gear.
3. An electrical hand-held tool according to claim 1, wherein the second subassembly includes a stator (7) of the electrical drive.
4. An electrical hand-held tool according to claim 1, wherein the second subassembly includes control electronics (8) for the electrical drive.

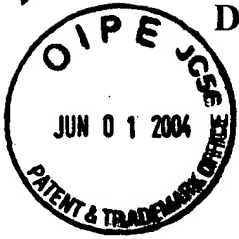
6. An electrical hand-held tool according to claim 1, wherein the first subassembly and the second subassembly have a substantially same mass.

7. An electrical hand-held tool according to claim 1, further comprising elastic spring means (9) for providing a vibration decoupling connection of the first subassembly with the second subassembly.

8. An electrical hand-held tool according to claim 7, further comprising a damping element (10) arranged parallel to the spring means (9).

9. An electrical hand-held tool according to claim 8, wherein the damping element is formed of a viscous elastic material.

10. An electrical hand-held tool according to claim 9, wherein the viscous elastic material has an optimal energy dissipation at an operation temperature and at an oscillation frequency of the hand-held tool.



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**APPENDIX "B"**

**Cases Relied Upon**

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1. In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).
2. National Tractor Pullers Assoc., Inc. v. Watkins, 205 U.S.P.Q. 892  
(D.C. NJ 1980)
3. Ex Parte Chicago Rawhide Manufacturing Co., 223 U.S.P.Q. 351  
(PO Bd. App. 1984).
4. W.L. Gore & Associates v. Garlock, Inc., 220 U.S.P.Q. 303 (Fed.  
Cir. 1983).